

R E M A R K S

Claims 8 to 20 as set forth in Appendix II of this paper are now pending in this case. Claims 1 to 7 have been canceled, Claims 8, 10 and 11 have been amended, and Claims 15 to 20 have been added, as indicated in the Listing of Claims set forth in Appendix I of this paper.

Accordingly, Claim 8 has been amended to remove the reference to Claim 1, and to relate to a process wherein the additional presence of constituent (C) is mandatory. Additionally, some editorial changes were made in the wording of Claims 8, 10 and 11. New Claims 15 to 20 have been introduced to further bring out some of the subsidiary embodiments of applicants' process in accordance with the disclosure on page 15, indicated lines 23 to 38, and page 18, indicated line 15, to page 19, indicated line 2, of the application. No new matter has been added.

In light of the foregoing and the attached, it is respectfully requested that the rejection of Claims 1 to 4 under Section 102(b), and the rejection of Claims 2 to 7 under Section 101, be withdrawn. Favorable action is solicited.

The Examiner provisionally rejected Claims 8 to 14 under Section 101 as being unpatentable in light of Claims 8 to 14 of copending application *Serial No. 10/166,130*. Favorable reconsideration of the Examiner's position is respectfully solicited. As herewith presented, applicants' invention requires the utilization of at least one conventional olefin-polymerization catalyst as a mandatory component. Accordingly, the claims herewith presented and Claims 8 to 14 of copending application *Serial No. 10/166,130*. no longer define the same invention. It is therefore respectfully requested that the rejection under Section 101 be withdrawn.

The Examiner provisionally rejected Claims 8 to 12 under the judicially created doctrine of obviousness-type double patenting as being unpatentable in light of Claims 8, 10 and 12 of copending application *Serial No. 10/166,140*. Favorable reconsideration of the Examiner's position is respectfully solicited. In accordance with the

claims herewith presented, applicants' invention requires that olefins are prepared in the presence of a catalyst system which contains, as a mandatory component (C), at least one conventional olefin-polymerization catalyst, whereas the process defined in Claims 8, 10 and 12 of copending application *Serial No. 10/166,140* requires the utilization of a complex of formula (I) which is immobilized on a support material. It is therefore respectfully requested that the rejection under the judicially created doctrine of obviousness-type double patenting be withdrawn. Favorable action is solicited.

REQUEST FOR EXTENSION OF TIME:

It is respectfully requested that a one month extension of time be granted in this case. A check for the \$110.00 fee is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

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Encl.: THE LISTING OF CLAIMS (Appendix I)  
THE AMENDED CLAIMS (Appendix II)

HBK/BAS

## A P P E N D I X I:

THE LISTING OF CLAIMS (version with markings):

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (currently amended) A process for polymerization or copolymerization of olefins, in which olefins are polymerized in the presence of the following components:

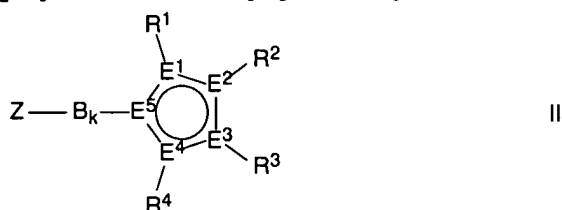
(A) ~~[the]~~ a substituted monocyclopentadienyl, monoindenyl, monofluorenyl or heterocyclopentadienyl ~~[complexes of claim 1,]~~ complex of ~~[the general]~~ formula (I)



in which the variables have the following meaning:

M is chromium, molybdenum or tungsten,

Y is described by ~~[the following general]~~ formula II

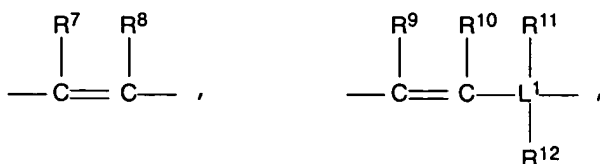


in which the variables have the following meaning:

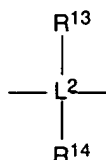
E<sup>1</sup>-E<sup>5</sup> are carbon or at maximum one of E<sup>1</sup> to E<sup>5</sup> is phosphorus or nitrogen,

Z is NR<sup>5</sup>R<sup>6</sup>, PR<sup>5</sup>R<sup>6</sup>, OR<sup>5</sup>, SR<sup>5</sup>, or an unsubstituted, substituted or condensed, partially unsaturated heterocyclic or heteroaromatic ring system,

B is one of the following groups:



and additionally, if Z is an unsubstituted, substituted or condensed, partially unsaturated heterocyclic or heteroaromatic ring system, B can also be



in which

L<sup>1</sup>, L<sup>2</sup> denotes silicon or carbon,

k denotes 1, or if Z is an unsubstituted, substituted or condensed, partially unsaturated heterocyclic or heteroaromatic ring system, is also 0,

X independently of one another fluorine, chlorine, bromine, iodine, hydrogen, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl, C<sub>6</sub>-C<sub>20</sub> aryl, alkylaryl with from 1 to 10 C atoms in the alkyl radical and from 6 to 20 C atoms in the aryl radical, NR<sup>15</sup>R<sup>16</sup>, OR<sup>15</sup>, SR<sup>15</sup>, SO<sub>3</sub>R<sup>15</sup>, OC(O)R<sup>15</sup>, CN, SCN, β-diketonate, CO, BF<sub>4</sub><sup>-</sup>, PF<sub>6</sub><sup>-</sup>, or bulky non-coordinating anions,

R<sup>1</sup>-R<sup>16</sup> independently of one another hydrogen, C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>6</sub>-C<sub>20</sub> aryl, alkylaryl with from 1 to 10 C atoms in the alkyl radical and from 6 to 20 C atoms in the aryl radical, SiR<sup>17</sup><sub>3</sub>, in which the organic radicals R<sup>1</sup>-R<sup>16</sup> can also be substituted by halogens, and two geminal or vicinal radicals R<sup>1</sup>-R<sup>16</sup> can also be joined to a 5- or 6-membered ring,

R<sup>17</sup> independently of one another hydrogen, C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>6</sub>-C<sub>20</sub> aryl, alkylaryl with from 1 to 10 C atoms in the alkyl radical and from 6 to 20 C atoms in the aryl radical, and two geminal radicals R<sup>17</sup> can also be joined to a 5- or 6-membered ring,

n is 1, 2 or 3,

m is 1, 2 or 3,

(B) optionally, one or more activator compounds, and

(C) [optionally] one or more additional catalysts conventionally used for the polymerization of olefins.

9. (original) The process of claim 8, in which the activator compound (B) is a compound selected from the group of aluminum oxane, dimethylanilinium tetrakis(pentafluorophenyl) borate, trityltetrakis(pentafluorophenyl) borate, or tris(pentafluorophenyl)borane.
10. (currently amended) The process of claim 8, in which at least one olefin selected from the group of ethene, propene, 1-butene, 1-pentene, 1-hexene, 1-heptene, 1-octene~~[, or]~~ and 1-decene is polymerized.
11. (currently amended) The process of claim 8, ~~[characterized in that]~~ in which an olefin selected from the group of propene, 1-butene, 1-pentene, 1-hexene, 1-heptene~~[, or]~~ and 1-octene is polymerized.
12. (original) The process of claim 8, in which the polymerization is conducted in suspension, in solution, or in the gas phase.
13. (original) Polymers of olefins, obtainable by the method of claim 8.
14. (original) Fibers, films and moldings, containing polymers of olefins of claim 13 as essential components.
15. (new) The process of claim 8, in which M is chromium.
16. (new) The process of claim 8, in which Z is an unsubstituted, substituted or condensed heteroaromatic ring system.
17. (new) The process of claim 8, in which  $E^1E^2E^3E^4E^5$  together with  $R^1R^2R^3R^4$  is unsubstituted or substituted indenyl.
18. (new) The process of claim 8, in which component (C) comprises at least one conventional olefin polymerisation catalyst selected from the group consisting of Ziegler-Natta catalysts, Phillips catalysts, metallocenes, constrained geometry complexes, nickel and palladium bisimine catalyst systems, iron and cobalt pyridine bisimine compounds and chromium amides.
19. (new) The process of claim 8, in which component (A) and/or component (C) is immobilized on an organic or inorganic support.
20. (new) The process of Claim 8, in which component (C) is used for the in situ preparation of comonomers.